

What is claimed:

1. A dicing die bonding film for disposition between a semiconductor silicon wafer and a dicing support tape, the dicing die bonding film comprising
(a) Layer-1 adhesive, which comes in contact with the dicing support tape, and
(b) Layer-2 adhesive, which comes in contact with the semiconductor silicon wafer,
in which the adhesion of Layer-2 to the silicon wafer is higher than the adhesion of Layer-1 to the dicing tape by at least 0.1N/cm.
2. The dicing die bonding film of claim 1 in which the Layer-1 adhesive has a characteristic peel strength to the dicing tape in the range of 0.05 to less than 0.5 N/cm, and the Layer-2 adhesive has a characteristic peel strength to the semiconductor silicon wafer of 0.5 N/cm or higher.
3. The dicing die bonding film of claim 1 in which the Layer-1 adhesive comprises (a) thermoplastic rubber, (b) thermoset resin having a softening point above 60°C, (c) hardener, (d) accelerator, and (e) filler; and in which the Layer-2 adhesive comprises (a) thermoplastic rubber, (b) thermoset resin in which at least 20% of the thermoset resin has a softening point below 60°C, (c) hardener, (d) accelerator, and (e) filler.
4. The dicing die bonding film of claim 3 in which the Layer-1 adhesive comprises (a) 30-85 weight % thermoplastic rubber, (b) 15-70 weight % thermoset resin having a softening point above 60°C, (c) 0.05-40 weight % hardener, (d) 0.01-10 weight % accelerator, and (e) 1-80 weight % filler and the Layer-2 adhesive comprises (a) 30-85 weight % thermoplastic rubber, (b) 15-70 weight % thermoset resin, in which at least 20% of the thermoset resin

has a softening point below 60°C, (c) 0.05-40 weight % hardener, (d) 0.01-10 weight % accelerator, and (e) 1-80 weight % filler.

5. The dicing die bonding film of claim 1 in which the thermoset resin in Layer-1 is a solid epoxy with a softening point of greater than 60°C and a weight per epoxy equivalent of 100 to 1000.

6. The dicing die bonding film of claim 1 in which the thermoset resin in Layer-2 is an epoxy having a softening point below 60°C and a weight per epoxy equivalent of 100 to 1000.

7. The dicing die bonding film of claim 1 in which the thermoset resin in Layer-2 is a mixture of thermoset resins and at least 20% of the total Layer-2 thermoset resins have a softening point below 60°C.

8. The dicing die bonding film of claim 1 in which the thermoplastic rubber is carboxy terminated butadiene-nitrile/epoxy adduct and nitrile butadiene rubber.

9. The dicing die bonding film of claim 8 in which the carboxy terminated butadiene-nitrile/epoxy adduct consists of about 20-80 wt% carboxy terminated butadiene-nitrile and about 20-80 wt% diglycidyl ether bisphenol A : bisphenol A epoxy.